

IMPROVED *IN VITRO* SYNTHESIS SYSTEM

ABSTRACT OF THE DISCLOSURE

Compositions, systems, kits and methods relating to *in vitro* synthesis are provided. The system includes one or more extracts having reduced activity of an enzyme that catalyses hydrolysis of high energy phosphate bonds or hydrolysis or formation of phosphodiester bonds, an inhibitor that inhibits hydrolysis of high energy phosphate bonds or hydrolysis or formation of phosphodiester bonds, and/or at least two energy sources. The composition may include a nucleic acid template and one or more products of the nucleic acid template.

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